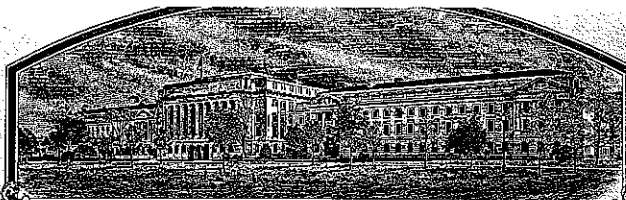


No.

9800138



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Hornbeck Seed Co., Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT: (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'HBK 6600'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this second day of May, in the year two thousand two.

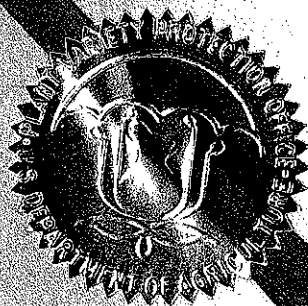
Attest:

Paul M. Juhl

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Samuel

Secretary



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Hornbeck Seed Co., Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER 92-09507 HBKX 9666		3. VARIETY NAME HBK 6600	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) P.O. Box 347 210 Dryer Road Dewitt, AR 72042		5. TELEPHONE (include area code) (870) 946-2087		FOR OFFICIAL USE ONLY PVPO NUMBER 9800138 FILING DATE 26 February 1998 FILING AND EXAMINATION FEE: \$ 2450.00 DATE 2/26/1998 CERTIFICATION FEE: \$ 320.00 DATE 4/3/02	
6. FAX (include area code) (870) 946-3253		7. GENUS AND SPECIES NAME Glycine Max			
9. CROP KIND NAME (Common name) Soybean		10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name) Corporation		11. IF INCORPORATED, GIVE STATE OF INCORPORATION Arkansas	
12. DATE OF INCORPORATION February 26, 1975		13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS James Thomas Hornbeck Seed Co., Inc. P.O. Box 347 Dewitt, AR 72042		14. TELEPHONE (include area code)	
15. FAX (include area code)		16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,600 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)		17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input checked="" type="checkbox"/> NO (If "no," go to item 20)		18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> YES (If "yes," give names of countries and dates) <input checked="" type="checkbox"/> NO			
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.					
The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.					
Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s)) 		SIGNATURE OF APPLICANT (Owner(s)) 			
NAME (Please print or type) James Thomas		NAME (Please print or type) JON HORNBECK			
CAPACITY OR TITLE Plant Breeder		CAPACITY OR TITLE CFO		DATE 2/20/98	

EXHIBIT A
HORNBECK SEED COMPANY, INC. APPLICATION FOR HBK 6600

ORIGIN AND BREEDING HISTORY

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Summer	1989	Cross 89056 made between A6785 and DP 415
Winter	1989-90	F ₁ advanced to F ₂ under lights in winter nursery
Summer	1990	F ₂ advanced to F ₃ by modified single seed descent in Central America
Fall	1990	F ₃ advanced to F ₄ by modified single seed descent in Central America
Fall	1991	F ₄ plants pulled and threshed separately from population 89056
Fall	1992	F ₅ rows from individual plants from population 89056 planted. Row # 89-9507 was identified and determined to be breeding true for characteristics described in Exhibit "C" of this application
Fall	1993	Yield tested at one location, 2 reps
Fall	1994	Yield tested at 9 locations across the South. Yield increases initiated
Fall	1995	Yield tested at 9 locations across the South. Seed increased to 2 units of Breeder seed.
Fall	1996	Continued in widescale tests across the South. Increased further.
Fall	1997	Entered into widescale University tests as HBKX 6600. Seed increased continued.
Fall	1998	Released as HBK 6600.

EXHIBIT B
HORNBECK SEED COMPANY, INC. APPLICATION FOR HBK 6600

NOVELTY STATEMENT

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To our knowledge, HBK 6600 most resembles A6785. Differences include but are not restricted to the following:

- 1) HBK 6600 has purple flowers whereas A6785 has white flowers.
- 2) HBK 6600 is resistant to Race 3 soybean cyst nematode whereas A6785 is susceptible.
- 3) HBK 6600 is resistant to stem canker whereas A6785 is susceptible.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

FORM APPROVED: UMS NO. 0581-0056

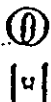
EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) Hornbeck Seed Co., Inc.	TEMPORARY DESIGNATION HBKX 9666	VARIETY NAME HBK 6600
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) P.O. Box 347 210 Dryer Road Dewitt, AR 72042		FOR OFFICIAL USE ONLY PVPO NUMBER 9800138

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,). Starred characters ★ are considered fundamental to an adequate soybean variety description. Other characters should be described when information is available.

1. SEED SHAPE:



1 - Spherical (L/W, L/T, and T/W ratios = < 1.2)

3 - Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 - Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)

4 - Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

★ 2. SEED COAT COLOR: (Mature Seed)

1 - Yellow

2 - Green

3 - Brown

4 - Black

5 - Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 - Dull ('Corzo 79'; 'Braxton')

2 - Shiny ('Nebsoy'; 'Gasoy 17')

★ 4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

★ 5. HILUM COLOR: (Mature Seed)

1 - Buff

2 - Yellow

3 - Brown

4 - Gray

5 - Imperfect Black

6 - Black

7 - Other (Specify) _____

★ 6. COTYLEDON COLOR: (Mature Seed)

1 - Yellow

2 - Green

★ 7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 - Low

2 - High

★ 8. SEED PROTEIN ELECTROPHORETIC BAND:

1 - Type A (SP1^a)

2 - Type B (SP1^b)

★ 9. HYPOCOTYL COLOR:

1 - Green only ('Evans'; 'Davis')

2 - Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 - Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 - Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

★ 10. LEAFLET SHAPE:

1 - Lanceolate

2 - Oval

3 - Ovate

4 - Other (Specify) _____

SECRET

2

...the fact that the *in vitro* and *in vivo* results are in good agreement, and that the *in vivo* results are in good agreement with the results obtained from the *in vitro* studies.

3

Figure 1. A schematic diagram of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group received a standard training program, while the experimental group received a modified training program. The results of the training program were compared between the two groups.

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ceptible; 2 = Resistant)

★ 2

★ 0

★ 0

[illegible]

★ 0

53

000

★ 0

2

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- ★ ☐ 0 Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
- ☐ 0 Purple Seed Stain (*Cercospora kikuchii*)
- ☐ 0 Rhizoctonia Root Rot (*Rhizoctonia solani*)
- Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
- ★ ☐ 1 Race 1 ☐ Race 2 ☐ Race 3 ☐ Race 4 ☐ Race 5 ☐ Race 6 ☐ Race 7
- ☐ Race 8 ☐ Race 9 ☐ Other (Specify) _____

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VIRAL DISEASES:

- ☐ 0 Bud Blight (Tobacco Ringspot Virus)
- ☐ 0 Yellow Mosaic (Bean Yellow Mosaic Virus)
- ★ ☐ 0 Cowpea Mosaic (Cowpea Chlorotic Virus)
- ☐ 2 Pod Mottle (Bean Pod Mottle Virus)
- ★ ☐ 2 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
- ★ ☐ 0 Race 1 ☐ 0 Race 2 ☐ 2 Race 3 ☐ Race 4 ☐ 1 Other (Specify) Race 14
- ☐ 0 Lance Nematode (*Hoplolaimus Colombus*)
- ★ ☐ 2 Southern Root Knot Nematode (*Meloidogyne incognita*)
- ★ ☐ 0 Northern Root Knot Nematode (*Meloidogyne Hapla*)
- ☐ 0 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
- ☐ Reniform Nematode (*Rotylenchulus reniformis*)
- ☐ OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ★ ☐ 0 Iron Chlorosis on Calcareous Soil
- ☐ Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- ☐ 0 Mexican Bean Beetle (*Epilachna varivestis*)
- ☐ 0 Potato Leaf Hopper (*Empoasca fabae*)
- ☐ Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	A6785	Seed Coat Luster	A6785
Leaf Shape	A6785	Seed Size	DP 3640
Leaf Color	A6785	Seed Shape	A6785
Leaf Size	A6785	Seedling Pigmentation	DP 3640

21. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/POD
				CM Width	CM Length	% Protein	% Oil		
HBK 6600 Submitted	137 8810080	1.3	64					13.3	
DP 3640 Name of Similar Variety	138	1.5	71					13.7	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.J. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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EXHIBIT D

HORNBECK SEED COMPANY, INC. APPLICATION FOR HBK 6600

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ADDITIONAL DESCRIPTION OF VARIETY

HBK 6600 is an F₄ selection composited in the F₅ generation from the cross A6785 and DP 415. Plants are medium tall with purple flowers, grey pubescence and tan pods. Seeds are dull yellow with imperfect black hila averaging about 3400 seed per pound. HBK 6600 is resistant to Race 3 soybean cyst nematode, stem canker and frogeye leaf spot. It is moderately resistant to aerial web blight and field tolerant to phytophthora root rot.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Hornbeck Seed Co., Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER HBK X9666	3. VARIETY NAME HBK 6600
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) P.O. Box 472 210 Drier Road DeWitt, Arkansas 72042	5. TELEPHONE (include area code) 870-946-2087	6. FAX (include area code) 870-946-3253
7. PVPO NUMBER 9800138		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. National or a U.S. based company? If no, give name of country

☒ YES ☐ NO
10. Is the applicant the original owner? ☐ YES ☒ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☒ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

Although, Hornbeck Seed Co., Inc. did not develop HBK 6600, the original breeder and company would have been eligible to apply and receive a Plant Variety Protection Certificate being a U.S. based company. Hornbeck Seed Co., Inc. is therefore eligible to apply and receive protection for HBK 6600 through our purchase of the variety from the original company and breeder.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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